

**ABSTRACT**

A composite beam is disclosed. The beam includes a beam (5), a solid slab or a composite slab (29) positioned on and supported by the beam, the solid slab and the composite slab including a slab section and a plurality of concrete ribs (21) extending from the slab section. The beam also includes at least one shear connector (15) positioned in at least one of the concrete ribs and connecting the solid slab or the composite slab to the beam. The beam also includes a reinforcing component (19) embedded in at least one concrete rib that includes an embedded shear connector or connectors. The reinforcing component is in the form of a mesh that includes line wires (41) and cross wires (43) that are connected together at the intersections of the wires.